College of Agriculture and Home Economics
THE OHIO STATE UNIVERSITY

EVALUATING ENTERPRISE COMBINATIONS

By

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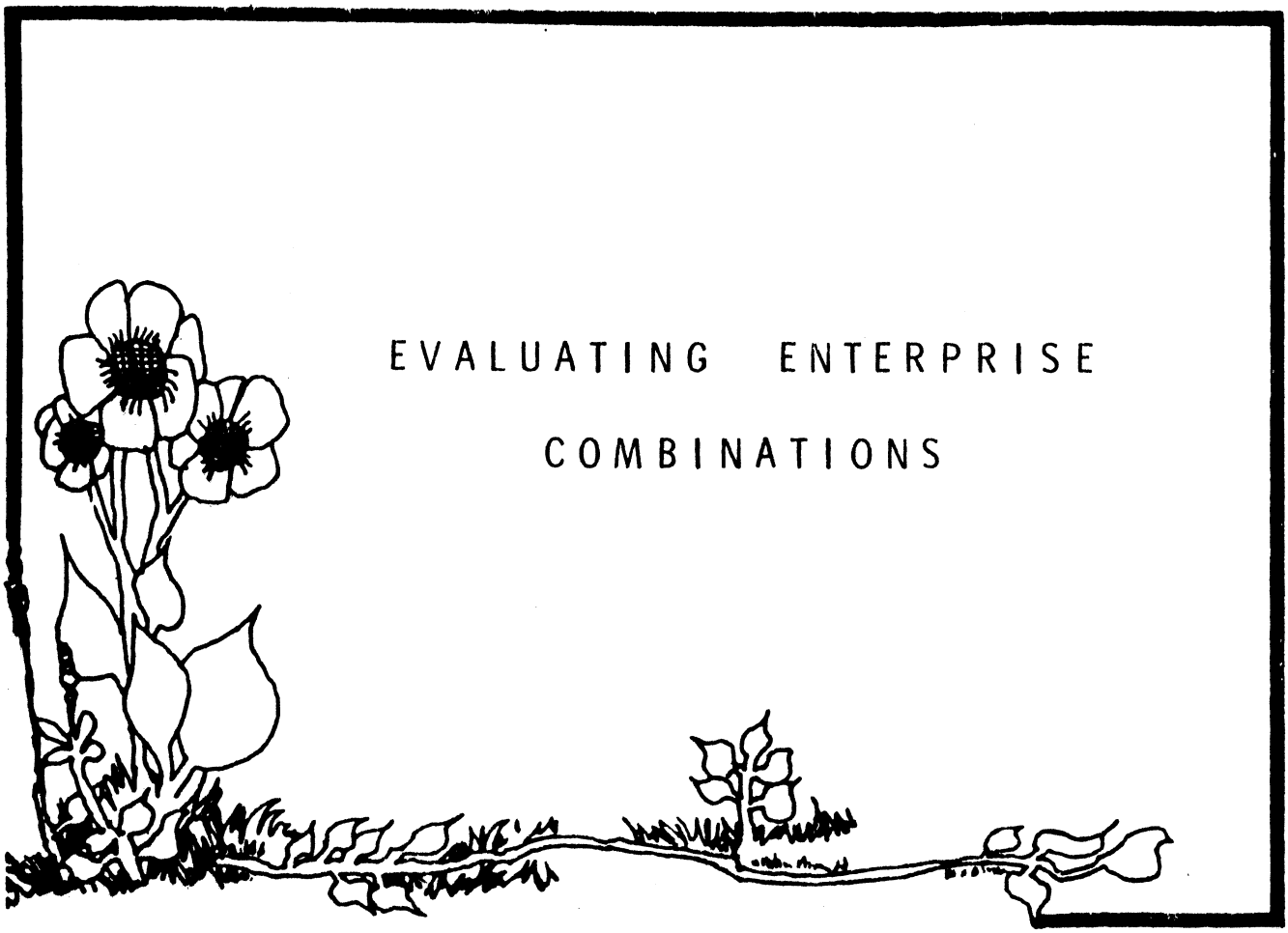


EVALUATING ENTERPRISE COMBINATIONS

IN THE FINAL ANALYSIS PROFITABILITY
WILL DICTATE ENTERPRISE COMBINATION

GENERAL INDICATION OF ENTERPRISE
COMBINATION WILL BE INDICATED BY:

PHYSICAL FACTORS
COMPARATIVE ADVANTAGE
MARKETS
TRANSPORTATION

WHEN EXAMINING A SPECIFIC FARM
ADAPT TO CONDITIONS!!!
NOT SAME ANSWER FOR ALL

EVALUATING ENTERPRISE COMBINATIONS

PRIMARY CONCERNS

RESOURCE USE

LAND
LABOR
CAPITAL
MANAGEMENT

QUALITY & QUANTITY

PROFITABILITY

SHORT RUN

ADEQUATE CASH FLOW

- VARIABLE COSTS
- DEBT PAYMENT
- RETURN TO LABOR / MANAGEMENT

LONG RUN

- CAPITAL RECAPTURE
- CAPITAL COST
- INFLATION

EVALUATING ENTERPRISE COMBINATIONS

METHODS

I. COMMON SENSE

EXPERIENCE (OUR BEST TEACHER)

- ON-FARM
- OTHER FARMERS
- MANAGEMENT SPECIALISTS
- EDUCATORS

SOPHISTICATION NOT ALWAYS NEEDED

- COMPUTERS - COMPUTERS - COMPUTERS
  - LOSE SIGHT OF PRINCIPLES
  - NEVER LEARN PRINCIPLES
- COMPUTERS ARE USEFUL
  - VERY COMPLEX SITUATIONS (FEW)
  - TEACH PRINCIPLES
- DON'T NEED IN MANY SITUATIONS
  - GRAIN vs. MORE DAIRY COWS?
  - LIMITED LAND -- COWS vs. HEIFERS?
  - ROUGH LAND -- BEEF COWS, SHEEP, or STEERS?
  - CORN vs. HAY
  - % CORN / % SOYBEAN / % WHEAT
  - PRODUCE OATS OR CORN SILAGE?
  - FEW RESOURCES / FEW ALTERNATIVES

2. LINEAR PROGRAMMING

ONE VIEW -- L.P. FOR EVERY FARM
ANOTHER VIEW -- UNNECESSARY FOR MOST FARMS IF PRINCIPLES UNDERSTOOD

EXAMPLE

OBJECTIVE OR PROFIT FUNCTION

MAXIMIZE RETURNS TO FIXED RESOURCES

WHAT IS FIXED
- RESOURCES
- COSTS / PRICES / YIELDS

WHAT IS VARIABLE
- RESOURCES
- COSTS / PRICES / YIELDS

WHAT ARE REQUIREMENTS

WHAT ARE LIMITS
- MAXIMUMS
- EQUALITIES
- MINIMUMS

$$\text{PROFIT} = NR_1(X_1) + NR_2(X_2) + NR_3(X_3) \cdots NR_i(X_i)$$

WHERE NR_i = NET RETURN ENTERPRISE i

X_i = SIZE OF ENTERPRISE i

GRAPHICAL REPRESENTATION OF L.P.

ENTERPRISE CHOICES

CORN
SOYBEANS

RESOURCES

LABOR - 1000 HOURS
LAND - 300 ACRES

REQUIREMENTS

	LAND	LABOR
CORN	1 ACRE	4 HOURS
SOYBEANS	1 ACRE	2 HOURS

LIMITS

NONE

NET RETURNS PER ACRE

CORN	$150
SOYBEANS	$100

3. APPROXIMATION TO L.P.

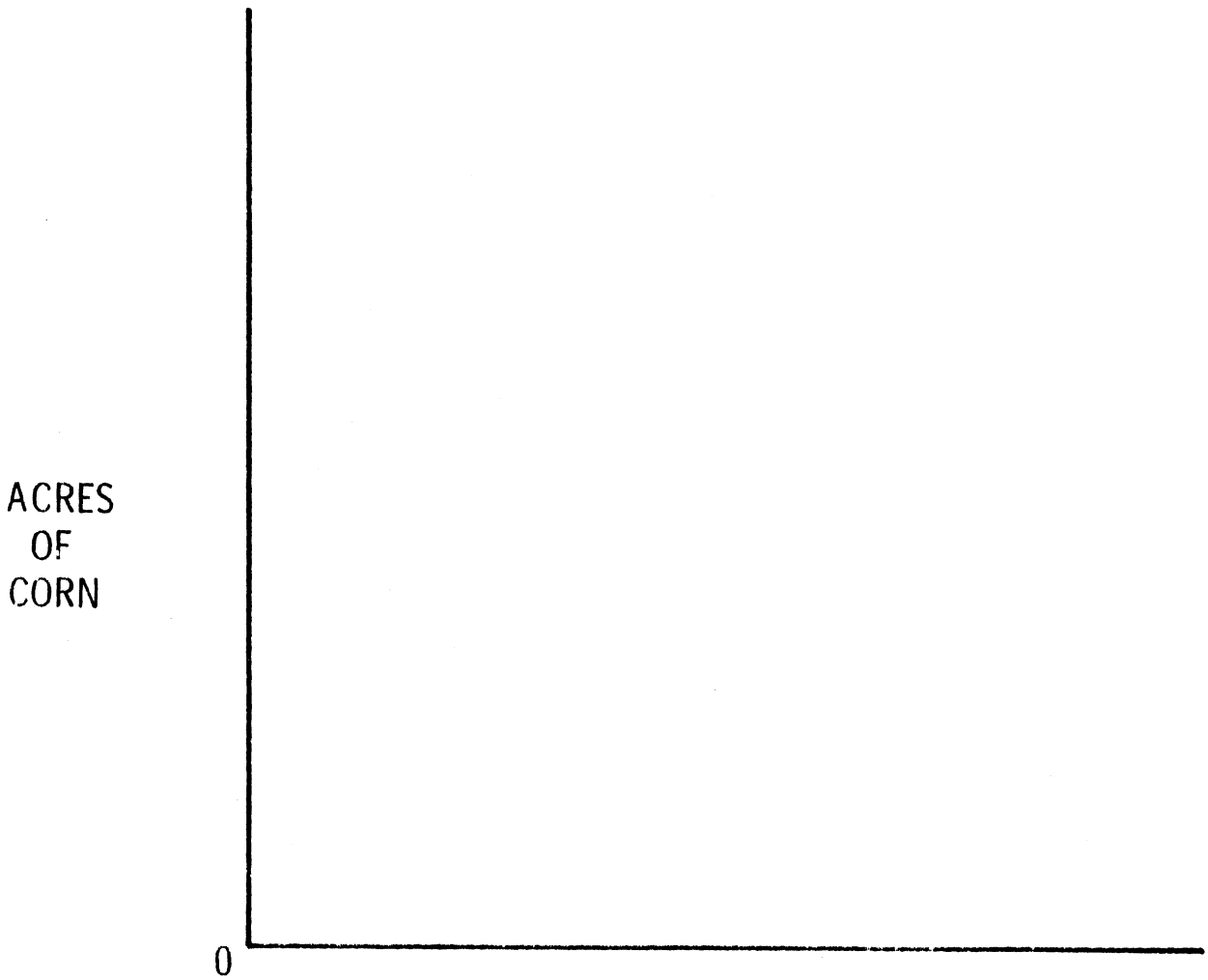
(NOT ALWAYS CORRECT)

ENTERPRISE REQUIREMENTS AND LIMITATIONS

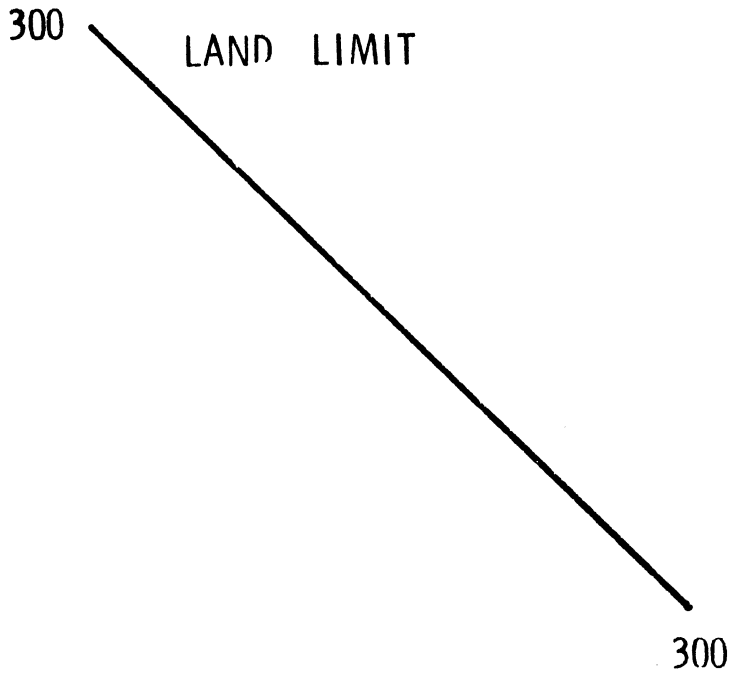
RESOURCE	AMOUNT AVAILABLE	REQUIRED / ACRE	
		CORN	SOYBEAN
LAND	300 A.	1	1
LABOR	1000 Hr.	4	2
NET RETURN		$150	$100

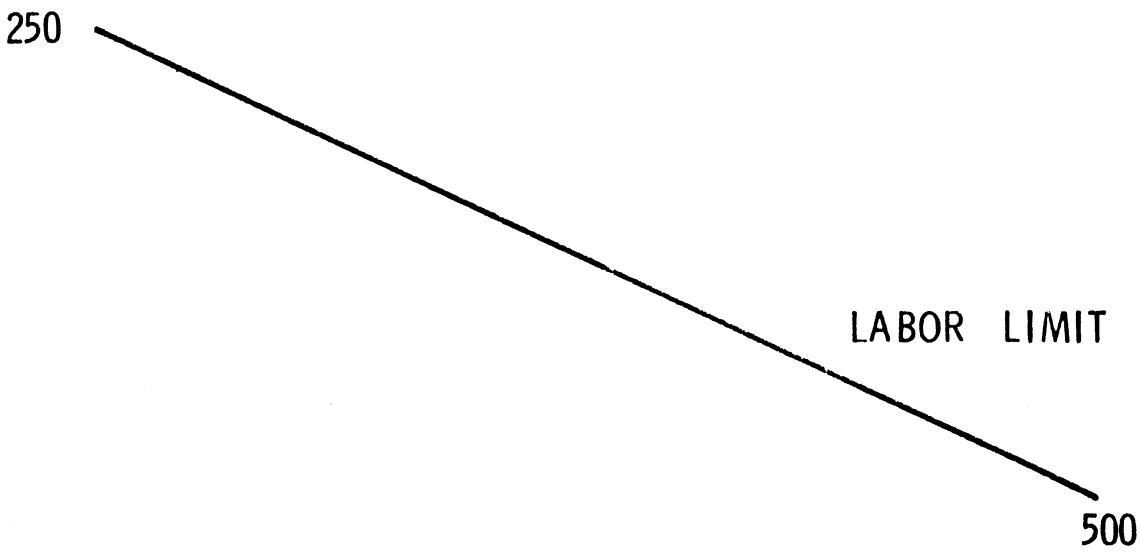
MAXIMUM OF EACH ENTERPRISE POSSIBLE

RESOURCE	AMOUNT	ACRES	
		CORN	SOYBEAN
LAND	300 A.	300	300
LABOR	1000 Hr.	250	500
MAX. NET		$37,500	$30,000

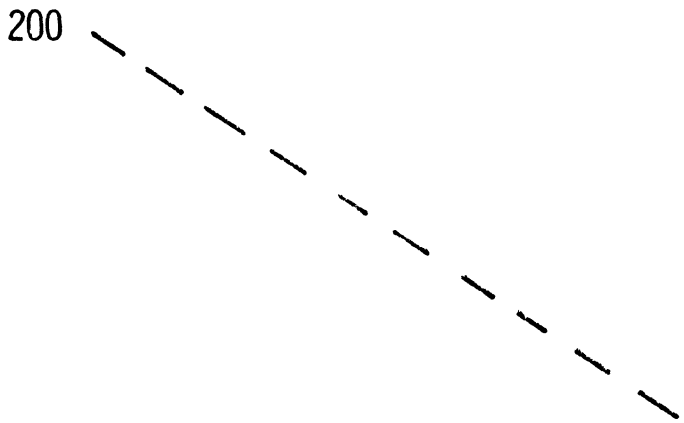


WHAT CAN WE PRODUCE?

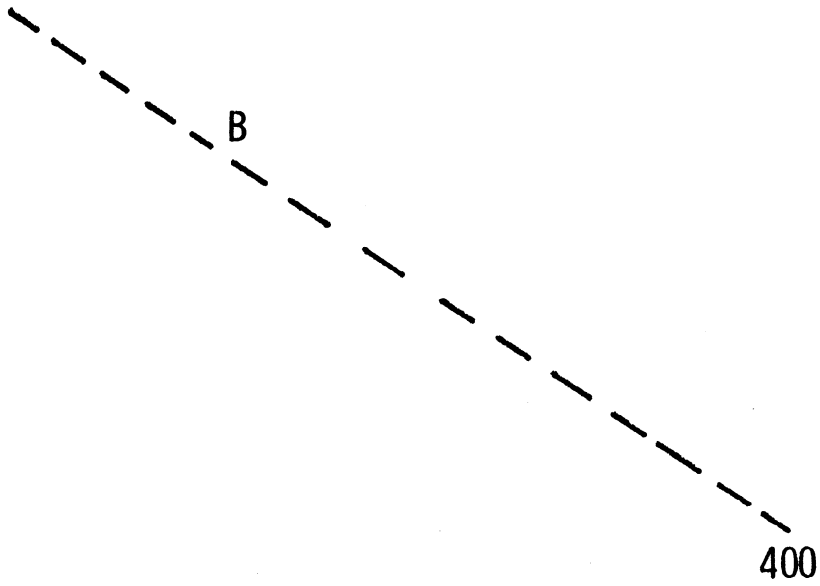

300
LAND LIMIT
300



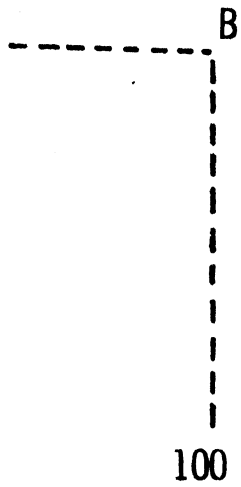
LINE ABC
WHAT SHOULD WE PRODUCE
A, B, or C?



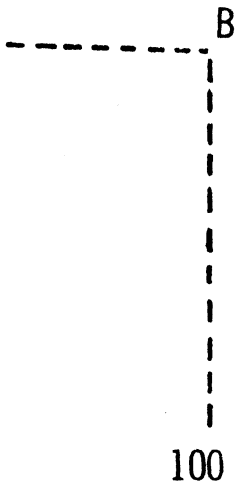
EQUAL REVENUE LINE
2 CORN = 3 SOYBEANS



GREATEST EQUAL REVENUE LINE
PRODUCE AT B



PRODUCE
200 ACRES CORN
100 ACRES SOYBEANS



PRODUCE
200 ACRES CORN
100 ACRES SOYBEANS

NET RETURNS PER UNIT OF RESOURCE

RESOURCE	CORN	SOYBEANS
LAND	$150	$100
LABOR	$ 37.50	$ 50

FARM PLAN GENERATION

	LAND	LABOR	NET RETURN
UNUSED	300	1000	0
CORN	250	1000	$37,500
UNUSED	50	0	
SOYBEANS	0	0	0
TOTAL			$37,500

APPROXIMATION METHOD

250 A. CORN
0 A. SOYBEANS = $37,500 N.R.

L.P. METHOD

2100 A. CORN
100 A. SOYBEANS = $40,000 N.R.